

# C-A OPERATIONS PROCEDURES MANUAL

## **8.16.6 LINAC Chilled Water System**

### **1. Purpose**

To provide operating instructions to the Water Systems Technicians for operation of the LINAC Chilled Water System.

### **2. Responsibilities**

Water Systems Technicians start and stop this system.

### **3. Prerequisites**

- 3.1 Startup – Request Permission from Linac Control.
- 3.2 Verify that cooling tower system is operating.
- 3.3 Shutdown - Request permission from LINAC Control.
- 3.4 Qualified and trained Water Systems Technician.

### **4. Precautions**

- 4.1 Pumps - Do not operate pumps without water or with valves closed.
- 4.2 Chiller - Do not operate without tower and chilled water circulation.

### **5. Procedures**

- 5.1 Verify that water level is within operating limits as marked on the chilled water expansion tank sight glass.
- 5.2 Open suction and discharge valves on select pump.
- 5.3 Roll pump shaft by hand.
- 5.4 Turn on chilled water pump circuit breaker.
- 5.5 Start pump at local start/stop station.
- 5.6 Check system pressure (60 - 80 psi) and temperature 45-50°F with chiller on) for proper settings and operation.
- 5.7 Observe pump operation and restore alarms.

- 5.8 Verify that the oil level (1/2 full) and temperature (130°F) of the selected chiller compressor is within normal limits as indicated on the compressor sight glass and temperature indicator.
- 5.9 Turn on chiller disconnect switch.
- 5.10 Place the chiller auto purge system in automatic with local purge switch.
- 5.11 Start chiller with local start switch on microprocessor. Chiller should start in approximately 4 minutes.
- 5.12 Observe chiller operation and log all pressure and temperature.
- 5.13 For shutdown, turn off chiller at microprocessor and wait for delayed shutdown. Turn off chilled water pump, close suction and discharge valves, and secure alarms.

**6. Documentation**

None

**7. References**

- 7.1 LINAC flow diagram, C.T. Main Drawing #2484-402-M2. Carrier startup, operations, and maintenance instruction manual.

**8. Attachments**

None